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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/686,463  | 10/16/2003  | Yutaka Oka           | FS-F03209-01        | 7086             |
| 37398   | 7590        | 05/13/2005           | EXAMINER            |                  |
| TAIYO CORPORATION<br>2111 JEFFERSON DAVIS HIGHWAY<br>#412, NORTH<br>ARLINGTON, VA 22202 |             |                      | CHEA, THORL         |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 1752                |                  |

DATE MAILED: 05/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/686,463

Applicant(s)

OKA ET AL

Examiner

Thorl Chea

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-19 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10162003
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Applicant's election with traverse of Group I, claims 1-14 in the reply filed on April 7, 2005 is acknowledged. This is not found persuasive because the applicants fail to provide a ground of rejection as to why the restriction was not proper.

The requirement is still deemed proper and is therefore made FINAL.

#### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The use of the term "kinds" in claim 1 is vague and indefinite. "type", *Ex parte Copenhaver*, 108 USPQ 118. The term is not clearly defined in the specification. Therefore, the metes and bounds thereof cannot be determined.

#### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-14 are rejected under 35 U.S.C. 103(a) as obvious over EP 1310825 (EP'825).

See photothermographic material in the abstract wherein the material contains silver halide having silver iodide content of 10 mole % or more, a reducing agent and a non-photosensitive silver layer; the reducing agent on page 35, [0146] to page 38; the polymer latex on page 43,

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[0187]; the polyhalogenate compound on page 45, [0200]; hydrogen bonding compound on page 39, [0159]; the silver halide grains having iodide content from 10 mole % to 100 mole % and grains 'size of 5 nm - 60 nm On page 30, [0078] to [0083]; and the FED sensitizer as a compound that generate two electron and one photon on page 32, [0016] . On page 32, [0117], it is disclosed that "in the present invention, one kind of photosensitive silver halide emulsion may be used or two or more different emulsions, for example, those having different average grain sizes, different halogen composition, different crystal multiple kinds of photosensitive silver halide having different sensitivities, contrast can be controlled. Each emulsion preferably has sensitivity differences of 0.2 logE or higher for the other emulsion. EP'825 may not exemplify the two kinds of photosensitive silver halides having respective sensitivities different from each other for a light with the same exposure wavelength, but suggest the two or more different emulsions, for example, those having different average grain sizes, different halogen composition, different crystal multiple kinds of photosensitive silver halide having different sensitivities, contrast can be controlled, and each emulsion preferably has sensitivity differences of 0.2 logE or higher for the other emulsion. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use a single type of silver halide grains or more than two types of silver halide grain so that the contrast can be controlled, and thereby provide an invention as claimed.

5. Claims 1—7, 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 1096310 (EP'310) in view of Uytterhoeven et al (US Patent No. 6,143,488) and Siga et al (US Patent No. 4,332,889).

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EP'310 discloses a photothermographic material substantially as claimed. See the abstract wherein the material having a photosensitive silver halide, a non-photosensitive salt of an organic acid, a reducing agent for silver ion having one or more phenol compound, a hydrogen bonding compound. See the phenol compound on page 3, [0012]; a compound having a phosphoryl group on page 4, [0017] and pages 20-34; polymer latex binder on page 38, [0018]; the development accelerator on page 36, [0082]; silver halide not particularly limited halogen composition including silver chloride, silver chlorobromiodide, silver bromide, and silver iodobromide on page 35, [0075]; the size of silver halide grains from 20 nm to 120 nm on page 36, [0077], and the organic polyhalogenate compound on page 59, [0241] and on page 70, polyhalogenate compound A. On page 37, [0087], it is disclosed that "one or more photosensitive silver halide emulsion may be used or two or more different emulsions for example, those having different average grain sizes, different halogen composition, different crystal multiple kinds of photosensitive silver halide having different sensitivities, contrast can be controlled. Each emulsion preferably has sensitivity differences of 0.2 logE or higher for the other emulsion. Uytterhoeven et al discloses the use of silver halide having iodide content at least 80 mole % which provide a photothermographic material post-processing light stability (abstract). Siga et al disclose the use of silver bromiodide having molar ratio of silver iodide to silver bromide preferably from 30/70 to 98/2 to provide a photothermographic material an improved spectral sensitivity as well as storage stability. See column 6, lines 43-68 and abstract. EP'310 may not exemplify the silver iodide content of the photosensitive silver halide of 5 % by mol or more, or the two kinds of photosensitive silver halides having respective sensitivities different from each other for a light with the same exposure wavelength, but

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discloses the use of silver halide such as silver bromiodide, and the two or more different emulsions, for example, those having different average grain sizes, different halogen composition, different crystal multiple kinds of photosensitive silver halide having different sensitivities, contrast can be controlled, and each emulsion preferably has sensitivity differences of 0.2 logE or higher for the other emulsion. The silver iodide and silver bromiodide is taught in Uytterhoeven et al and Siga et al as to provide the post stability of the photothermographic material.

It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use a single type of silver halide grains or more than two types of silver halide grain so that the contrast can be controlled in combination with the use of silver iodide or silver bromiodide known in Uytterhoeven et al and Siga et al to provide post-processing light stability of the photothermographic material, and thereby provide an invention as claimed.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP 1096310 (EP'310) in view of Uytterhoeven et al (US Patent No. 6,143,488) and Siga et al (US Patent No. 4,332,889) as applied to claims 1—7, 9-14 above, and further in view of either Adin et al (US Patent 6,054,260) or Farid et al (US Patent No. 5,747,236). The compound that can be one-electron-oxidized to provide a one-electron oxidation product, which releases one electrons have been known and taught in Farid et al in column 3, lines 45-65 and abstract; and Adin et al in the abstract and column 63-64. The compounds are useful in providing silver halide emulsion with increase sensitivity. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the compound taught in either Adin et al or Farid et al in the material obtained by the combination of the applied prior art, EP 1096310 (EP'310) in view of

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Uytterhoeven et al (US Patent No. 6,143,488) and Siga et al (US Patent No. 4,332,889), with an expectation of increase the sensitivity thereof, and thereby provide a material as claimed.

***Conclusion***


7. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

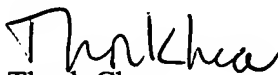
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (571) 272-1328. The examiner can normally be reached on 9 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (571)272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tch   
April 28, 2005

  
Thorl Chea  
Primary Examiner  
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